

## Case 3007

***Trematospira* Hall, 1859 (Brachiopoda): proposed designation of *Spirifer multistriatus* Hall, 1857 as the type species**

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**Abstract.** The purpose of this application is to conserve the Lower Devonian brachiopod name *Trematospira* Hall, 1859 in its accustomed usage. Hall's publication was delayed and meanwhile the name was made available in 1858 by Davidson, who attributed authorship to Hall, with *Spirifer perforatus* Hall, 1857 as the type species by monotypy. Hall & Clarke (1893) designated *Spirifer multistriatus* Hall, 1857 as the type species, and this designation is almost universally accepted and should be conserved.

**Keywords.** Nomenclature; taxonomy; Brachiopoda; Lower Devonian; North America; *Trematospira*; *Trematospira multistriatus*.

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1. The results of investigations made by James Hall during the years 1855 to 1858 were 'communicated, in part or entirely, at different times, to the Albany Institute; to the Reports of the Regents of the University on the State Collections of Natural History, for the years 1856 and 1858; to the American Association for the Advancement of Science' (Hall, 1859a, p. 7). These results were printed in the third volume of the *Palaontology of the State of New York*. This volume, although 'printed, in the years 1857 and 1858' suffered a long delay in publication (see Hall, 1867, footnote on p. 271). So long was the delay that Hall tried to overcome the problem by publishing the results of his investigations, including descriptions of new genera, in the *Twelfth Annual Report on the State Cabinet* (Hall, 1859a), which appeared before, although in the same year as, the third volume of the *Palaontology of the State of New York* (Hall, 1859b).

2. One of the new genera published by Hall was *Trematospira* (Hall, 1859a, p. 27), after which Hall added the words '(Hall, 1857)' although the name was not mentioned in any of his papers published in 1857. Species included in *Trematospira* by Hall were *Spirifer perforatus* Hall, 1857 (p. 59), *Spirifer multistriatus* Hall, 1857 (p. 59), *Trematospira costata* Hall, 1859, *T. simplex* Hall, 1859 and *Atrypa camura* Hall, 1852. When the third volume of the *Palaontology of the State of New York* was published later in 1859 the name was written (Hall, 1859b, p. 207) '*Trematospira* (n.g.)'.

3. In his study of the genera and subgenera of Brachiopoda having spiralia, Davidson (1858, p. 412) included 'Sub-genus *Trematospira*, Hall, *T. perforata* Hall'. Although he did not describe *Trematospira* in detail, the inclusion of an existing species is adequate to make the generic name *Trematospira* available with *T. perforata* as type species by monotypy. Although Hall did not publish the name *Trematospira* until 1859, it is clear that his ideas had already reached Davidson, who

in 1858 explicitly attributed authorship to him; under Article 50a of the Code authorship of *Trematospira* is Hall in Davidson, 1858. In his *Monograph of the British Fossil Brachiopoda*, Davidson (1882, p. 82) referred to '*Trematospira* Hall, 1857', but never discussed or described the taxon, which occurs only in North America. He referred to '*S. multiplicata*' as the type of *Trematospira*, but gave no author; since Hall never included a species of that name in *Trematospira* it is likely that *multiplicata* was an error for *multistriatus*.

4. Hall & Clarke (1893, p. 124) described '*Trematospira* Hall, 1859' and (p. 126) gave *Spirifer multistriatus* Hall as its type species, giving as reason for their choice 'it is better known and of more frequent occurrence' than *T. perforata* 'which was the first in the descriptive list'.

5. *Spirifer multistriatus* was adopted as type species of *Trematospira* in the first edition of the *Treatise on Invertebrate Paleontology* by Boucot, Johnson & Staton (1965, p. H652) and is taken as such by virtually all authors (e.g. Likharev, Makridin, Nikiforova & Rzhonsnitkaia, 1960, p. 285; Norris, 1964, p. 63; Grunt, 1986, p. 151; a further nine references by a further 16 authors using *Trematospira* in this sense are held by the Commission Secretariat). The only recent exception of which I am aware is Feldman (1994, p. 29) who gave *Trematospira gibbosa* Hall as type species. However, *T. gibbosa* was not made available until Hall, 1860 (p. 82) and was not originally included in *Trematospira*, which was established in 1859; as such, *T. gibbosa* cannot be accepted as a valid type species. It is intended to give *Spirifer multistriatus* as the type species of *Trematospira* in the forthcoming second edition of the *Treatise*.

6. To maintain the generally accepted concept of *Trematospira* I propose that *Spirifer multistriatus* Hall, 1857 be accepted as its type species and that its authorship be attributed to Hall, 1859.

7. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary powers:

- (a) to suppress the name *Trematospira* Hall in Davidson, 1858 and all uses of the name prior to the publication of *Trematospira* Hall, 1859 for the purposes of both the Principle of Priority and the Principle of Homonymy;
- (b) to set aside all fixations of type species for the nominal genus *Trematospira* Hall, 1859 prior to the designation by Hall & Clarke (1893) of *Spirifer multistriatus* Hall, 1857;

(2) to place on the Official List of Generic Names in Zoology the name *Trematospira* Hall, 1859 (gender: feminine), type species by subsequent designation by Hall & Clarke (1893) *Spirifer multistriatus* Hall, 1857;

(3) to place on the Official List of Specific Names in Zoology the name *multistriatus* Hall, 1857, as published in the binomen *Spirifer multistriatus* (specific name of the type species of *Trematospira* Hall, 1859);

(4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Trematospira* Hall in Davidson, 1858, as suppressed in 1(a) above.

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